

The influence of the test product on the key organisms of the respective body region was examined.

Information about the tested product:

Manufacturer:

Codex Labs Corporation
1900 Camden Avenue, Suite 101
CA 95124 San Jose
USA

Name of the product:

Sensitive Skin - Sea Salt Soak

Product type:	Final product
Application:	Rinse-off
Dilution:	5% in PBS
Sample received:	25 August 2023
Test Start:	29 August 2023
Test End:	26 September 2023
Test Standard:	MyMicrobiome Standard 18.11 Face / Body
Test result:	1.5
Certification:	granted

Test description

The MyMicrobiome Standard evaluates cosmetic and personal care products, that encounter the skin or mucous membrane, in terms of their influence on the microbiome located at a specific body site.

An intact skin microbiome has a fundamental influence on skin health. Products which are to be skin-friendly must also be Microbiome-friendly in order not to unbalance the skin of the user.

The MyMicrobiome Standard evaluates the influence of cosmetic and personal care products on the microbial key players of a specific skin or mucous membrane area. The human microbiome is very individual from person to person.

Each area, however, harbors a characteristic composition of bacteria, viruses and fungi. The test examines the products influence on the key organisms typical for each skin area and thus offers a standardized procedure.

Various aspects are examined:

The microbial quality of the product.

The influence of the product on the natural, healthy skin balance.

The skin-commensal bacterium *Staphylococcus epidermidis* keeps the skin with antimicrobial peptides (so-called bacteriocins) and pH adjustments healthy and keeps skin-harmful germs such as *Staphylococcus aureus* in check. The product should not disturb this balance between skin-friendly and skin-harmful bacteria. This sensitive balance is investigated in conjunction with the product.

The influence of the product on the bacterial diversity of the specific body region.

Each body region is colonized by a certain microbial composition. For a healthy skin it is particularly important to maintain this biodiversity. The influence of the product on the respective microbial mixture is examined in the test. The aim is to find as many key organisms as possible after contact with the product.

The influence of the product on the growth behavior of the microbes of the specific body region.

In addition to the diversity of the specific microbiome, the growth or number of different key organisms should not be influenced by the product. This is investigated in a skin-product contact model. The key organisms are brought into direct and indirect contact with the product and their growth is observed.

Results

The microbial quality of the product.

The prerequisite for the test for microbial friendliness is the microbiological quality of the product. The following table contains the limit values that must be observed.

Types of organisms	Limit values	
	Products specially designed for children under 3 years, eye area or mucous skins	Other products
Total counts mesophilic, aerobic microorganisms (bacteria, yeasts, molds, (TAMC and TYMC))	$\leq 1 \times 10^2$ cfu/g or ml ^a	$\leq 1 \times 10^3$ cfu/g or ml ^b
<i>Escherichia coli</i>	Not detectable in 1g or 1 ml	Not detectable in 1g or 1 ml
<i>Pseudomonas aeruginosa</i>	Not detectable in 1g or 1 ml	Not detectable in 1g or 1 ml
<i>Staphylococcus aureus</i>	Not detectable in 1g or 1 ml	Not detectable in 1g or 1 ml
<i>Candida albicans</i>	Not detectable in 1g or 1 ml	Not detectable in 1g or 1 ml
a >200 cfu/g or ml, b >2000 cfu/g or ml		

Results Microbiological quality

Determination of TAMC, TYMC, absence of *E. coli*, *P. aeruginosa* and *S. aureus*.

The microbiological quality of the product according to DIN EN ISO 17516 is fulfilled.

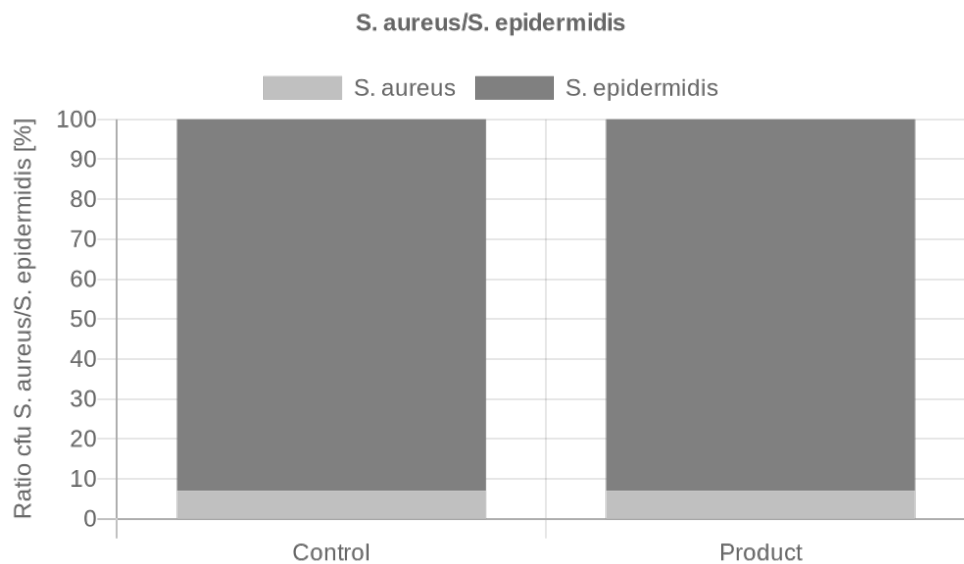
Parameter	Sample no.: 23.700.18.1
TAMC [cfu/0,1 ml]	< 1,0E+01
TYMC (incl. <i>Candida albicans</i>) [in 0,1 ml]	negative
<i>Escherichia coli</i> [in 0,1 ml]	negative
<i>Pseudomonas aeruginosa</i> [in 0,1 ml]	negative
<i>Staphylococcus aureus</i> [in 0,1 ml]	negative

Results

The influence of the product on the natural, healthy skin balance.

A co-culture of *S. epidermidis* and *S. aureus* is incubated with the product.
The ratio of the two microbes to each other is determined.

Determination of the bacterial count at time t = 15 min (rinse-off) or 4h (leave-on).

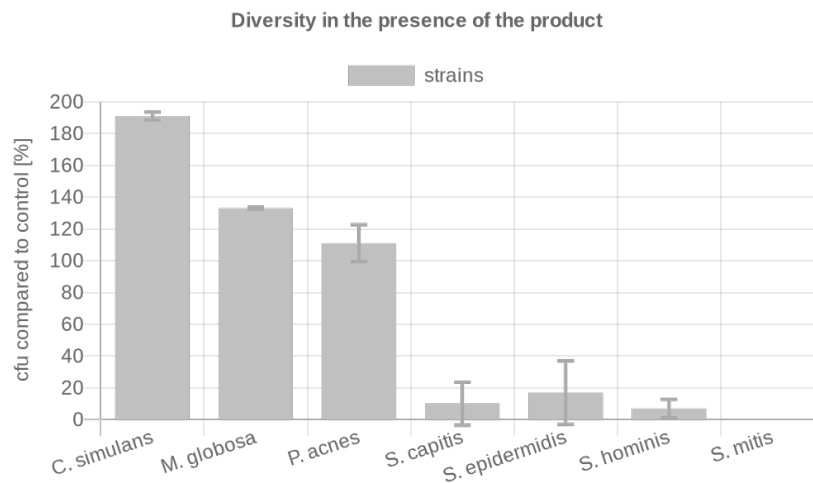


	cfu/ml		Ratio Product/ Control	Grade
	<i>S. aureus</i>	<i>S. epidermidis</i>		
Control	350	4476.7	1.1	1.0
Product	320	4406.7		

Results – SEBACEOUS SKIN -

The influence of the product on the microbial diversity of the specific body region.

A co-culture of key organisms of the specific body region is incubated with the product for t = 15 min (rinse-off) or 4h (leave-on). The ratio of the microbes compared to the control (PBS) is determined.

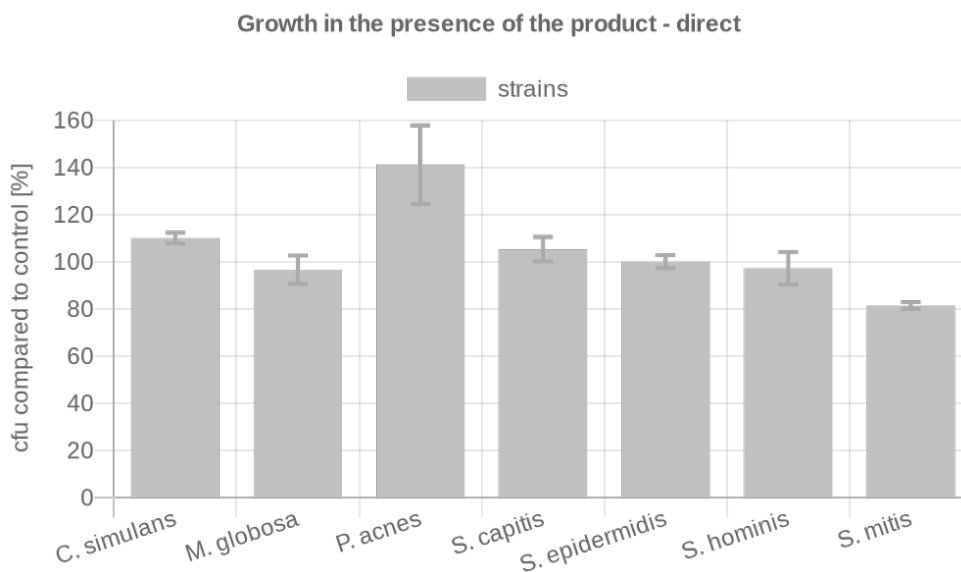


Key-Microbe	t=	15min	Rating
	cfu/ml		
<i>C. simulans</i>	Control	526.7	3
	Product	1006.7	
<i>M. globosa confluence</i>	Control	12166.7	2
	Product	16233.3	
<i>P. acnes</i>	Control	293.3	1
	Product	326.7	
<i>S. capitis</i>	Control	1566.7	3
	Product	153.3	
<i>S. epidermidis</i>	Control	1866.7	3
	Product	310	
<i>S. hominis</i>	Control	3966.7	3
	Product	263.3	
<i>S. mitis</i>	Control		
	Product	0	
Overall rating:			2.5

Results – SEBACEOUS SKIN -

The influence of the product on the growth behavior of the microbes of the specific body region – directly.

The influence of the product on the growth of each individual microbe of the key organisms of the specific body region is investigated and put in relation to the control (PBS). Product contact with the microorganisms is directly.

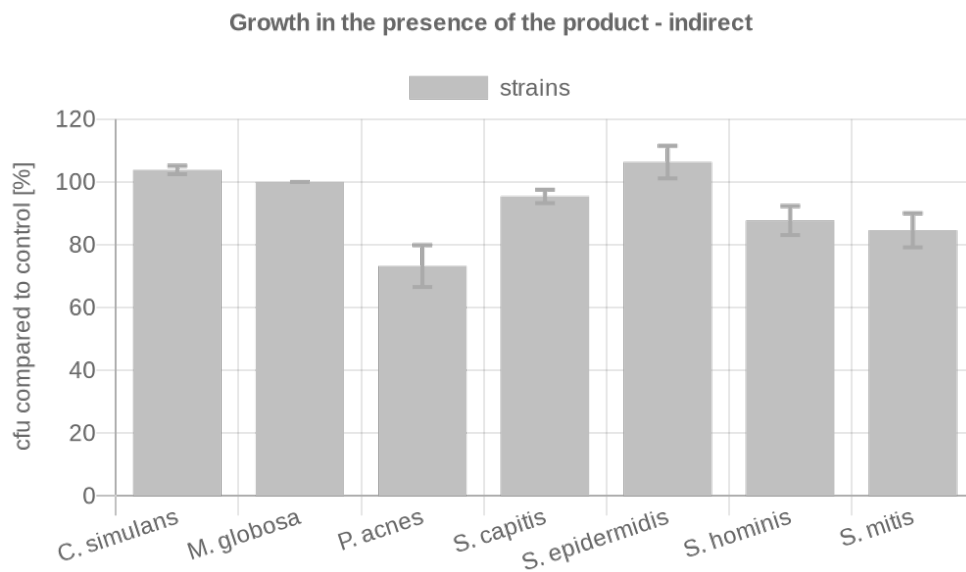


Key-Microbe	cfu/ml		Rating
	Control	Product	
<i>C. simulans</i>	Control	383.3	1
	Product	422	
<i>M. globosa confluence</i>	Control	100	1
	Product	96.7	
<i>P. acnes</i>	Control	25	2
	Product	35.3	
<i>S. capitis</i>	Control	268.7	1
	Product	283.3	
<i>S. epidermidis</i>	Control	620	1
	Product	620.7	
<i>S. hominis</i>	Control	887	1
	Product	862.7	
<i>S. mitis</i>	Control	720	2
	Product	586.7	
Overall rating:			1.3

Results – SEBACEOUS SKIN -

The influence of the product on the growth behavior of the microbes of the specific body region – indirectly.

The influence of the product on the growth of each individual microbe of the key organisms of the specific body region is investigated and put in relation to the control (PBS). The product contact to the microorganisms is indirect.

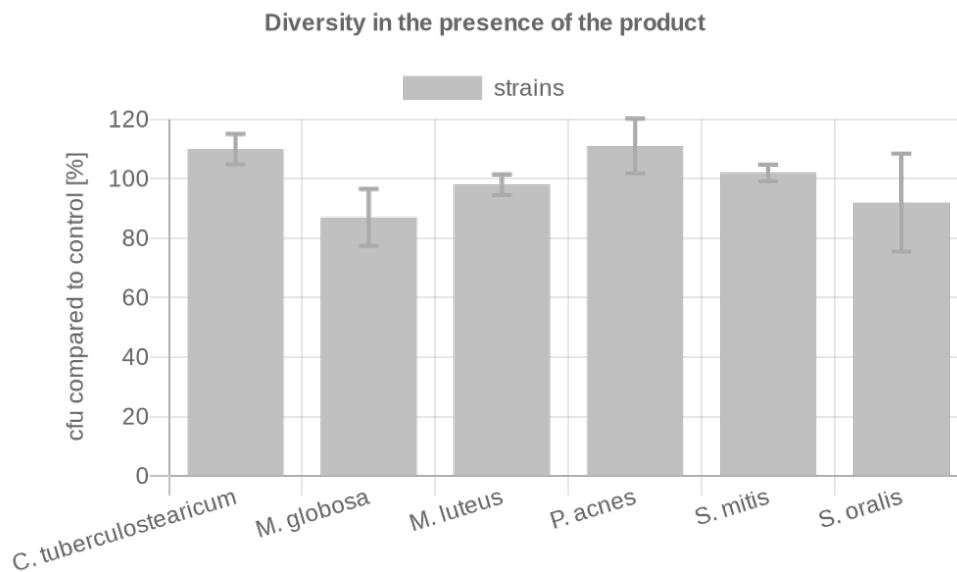


Key-Microbe	cfu/ml		Rating
<i>C. simulans</i>	Control	440	1
	Product	456.7	
<i>M. globosa confluence</i>	Control	100	1
	Product	100	
<i>P. acnes</i>	Control	28.7	2
	Product	21	
<i>S. capitis</i>	Control	288	1
	Product	274.7	
<i>S. epidermidis</i>	Control	580.7	1
	Product	617.3	
<i>S. hominis</i>	Control	1011	2
	Product	887	
<i>S. mitis</i>	Control	641.3	2
	Product	542.7	
Overall rating:			1.4

Results – DRY SKIN -

The influence of the product on the microbial diversity of the specific body region.

A co-culture of key organisms of the specific body region is incubated with the product for t = 15 min (rinse-off) or 4h (leave-on). The ratio of the microbes compared to the control (PBS) is determined.

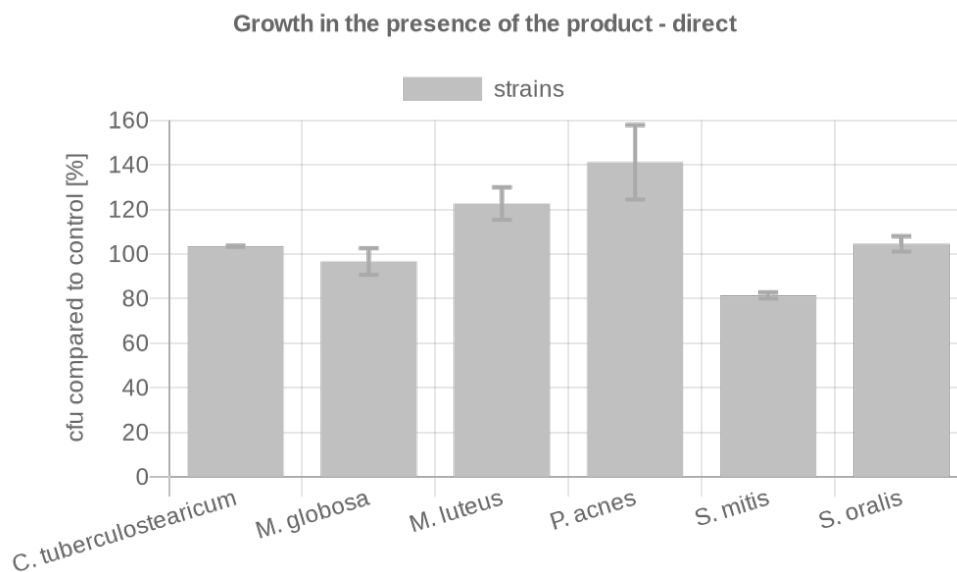


Key-Microbe	t=	15min	Rating
	cfu/ml		
<i>C. tuberculoostearicum</i>	Control	103,3	1
	Product	113,3	
<i>M. globosa</i>	Control	1266,7	2
	Product	1100	
<i>M. luteus</i>	Control	2313,3	1
	Product	2270	
<i>P. acnes</i>	Control	706,7	1
	Product	783,3	
<i>S. mitis</i>	Control	910	1
	Product	930	
<i>S. oralis</i>	Control	3466,7	2
	Product	3200	
Overall rating:			1.3

Results – DRY SKIN -

The influence of the product on the growth behavior of the microbes of the specific body region – directly.

The influence of the product on the growth of each individual microbe of the key organisms of the specific body region is investigated and put in relation to the control (PBS). Product contact with the microorganisms is directly.

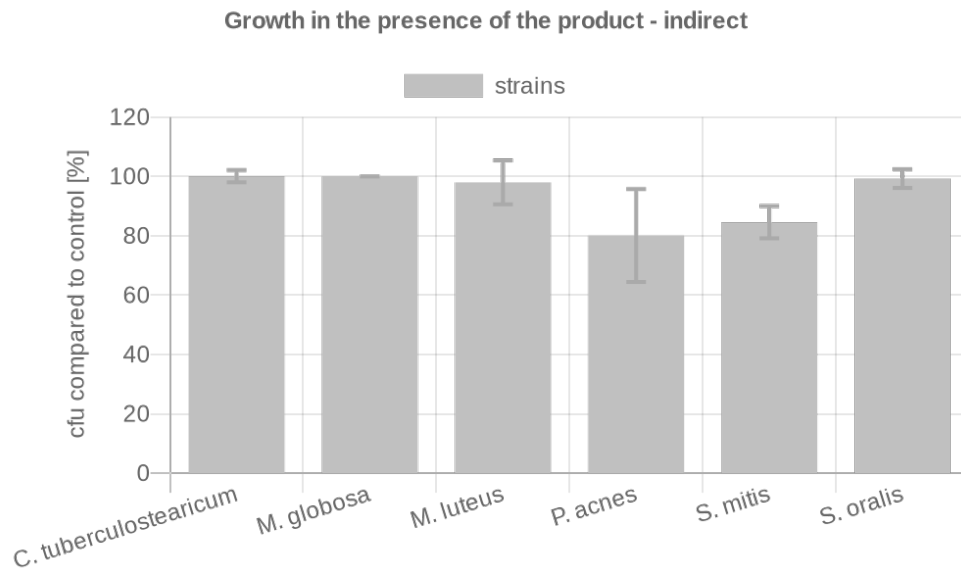


Key-Microbe	cfu/ml		Rating
	Control	Product	
<i>C. tuberculostearicum</i>	Control	3058.3	1
	Product	3164.3	
<i>M. globosa confluence</i>	Control	100	1
	Product	96.7	
<i>M. luteus</i>	Control	206.7	1
	Product	253.7	
<i>P. acnes</i>	Control	25	2
	Product	35.3	
<i>S. mitis</i>	Control	720	2
	Product	586.7	
<i>S. oralis</i>	Control	2922	1
	Product	3057.3	
Overall rating:			1.3

Results – DRY SKIN -

The influence of the product on the growth behavior of the microbes of the specific body region – indirectly.

The influence of the product on the growth of each individual microbe of the key organisms of the specific body region is investigated and put in relation to the control (PBS). The product contact to the microorganisms is indirect.



Key-Microbe	cfu/ml		Rating
<i>C. tuberculostearicum</i>	Control	3067.3	1
	Product	3070.7	
<i>M. globosa confluence</i>	Control	100	1
	Product	100	
<i>M. luteus</i>	Control	229.3	1
	Product	224.7	
<i>P. acnes</i>	Control	28.7	2
	Product	23	
<i>S. mitis</i>	Control	641.3	2
	Product	542.7	
<i>S. oralis</i>	Control	2459.3	1
	Product	2441	
Overall rating:			1.3

Results

The results are evaluated with grades from 1 (one) to 3 (three). If the product shows no or positive influence to the above-mentioned aspects, a grade of 1 is awarded respectively.

If only a very weak negative influence can be detected in the tests, the grade 2 is awarded and in case of a clearly negative influence, the product receives the grade 3.

The product has passed up to grade 2.0.

Here the grade means

1.0 – 2.0 = Microbiome-friendly; 2.1 – 3.0 = Microbiome-influencing

Test	Grade
Balance of the skin microbiome	1.0
Diversity of the corresponding skin microbiome (sebaceous, x2)	2.5
Diversity of the corresponding skin microbiome (dry, x2)	1.3
Skin-product contact direct (sebaceous, x2)	1.3
Skin-product contact direct (dry, x2)	1.3
Skin-product contact indirect (sebaceous)	1.4
Skin-product contact indirect (dry)	1.3
Overall grade	1.5

With an overall grade of 1.5 the seal „Microbiome-friendly“ is awarded according to MyMicrobiome Standard 18.11 Face / Body.

Place, Date: Balzers, 08 July 2024

Responsible person: Dr. Kristin Neumann

Signature:

